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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,797	12/21/2005	Piero Salussolia	39994-238528	5859

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Post Office Box 34385
Washington, DC 20043-9998

EXAMINER

COLILLA, DANIEL JAMES

ART UNIT	PAPER NUMBER
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2854

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,797	Applicant(s) SALUSSOLIA ET AL.	
	Examiner Daniel J. Colilla	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 3 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/21/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Note:

1. While there is nothing inherently wrong with the term “suitable” recited in a claim, it does not positively recite any limitations in the claim as used by applicant. It is suggested that applicant not use this term to more clearly define the positively recited subject matter.

Claim Objections

2. Claims 1-8 are objected to because of the following informalities:

With respect to claims 1-4 and 8, where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term.

Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “sprocket” in claims 1-4 and 8 is used by the claim to mean “core”, while the accepted meaning is as follow:

1. Any of various toothlike projections arranged on a wheel rim to engage the links of a chain.
2. A cylinder with a toothed rim that engages in the perforations of photographic or movie film to pull it through a camera or projector.

or:

1. Also called: (**sprocket wheel**) a wheel with teeth on the rim, that drives or is driven by a chain
2. A cylindrical wheel with teeth on one or both rims for pulling film through a camera or projector [origin unknown]

The term is unclear because the specification does not clearly redefine the term.

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With respect to claim 3, the phrase, “is linearly sliding” is awkward and appears to be a direct translation from a foreign language. Since the support is not always linearly sliding and to more positively recite a structural limitation in the device, the examiner suggest that applicant recites, --the support is mounted to linearly slide with respect to said wall.--

Appropriate correction is required.

3. Claim 2 is objected to because it includes reference characters which are not enclosed within parentheses (see very end of claim).

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Tozaki (JP 2001-206602).

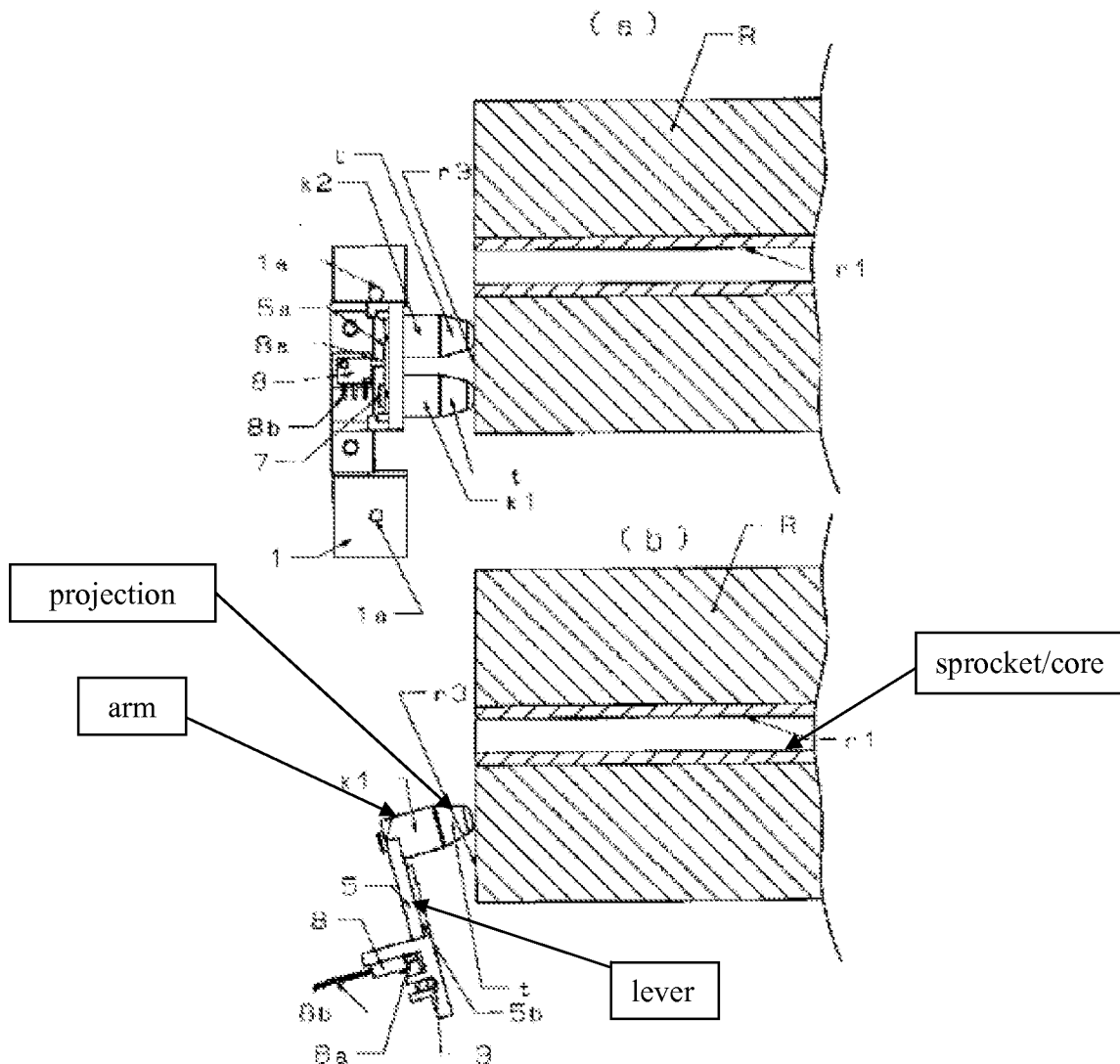
With respect to claims 1 and 8, Tozaki discloses a device for detecting end of paper for a printer 100, wherein said paper is wound on a roll R placed in a housing, said roll R being

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suitable for assuming different positions in said housing, respectively when said printer is in a first, or in a second operating position:

said detecting device comprising sensor means S suitable for cooperating with a sprocket of said roll R, when said roll contains a predetermined minimum length of paper, wherein said sensor means S comprises a lever 5 movable with respect to said housing, comprising two arms k1 bearing at one end a respective projecting element t being suitable for engaging a hole in said sprocket (see Fig. 5 of Tozaki), respectively when said printer is in said first, or in said second operating position as shown below in the Figure taken from Fig. 4 of Tozaki:

【圖4】



The recitation of the printer structure and it's possible "suitable" uses is not considered as positively recited as part of the claimed subject matter since the claim's preamble is directed toward a device for detecting end paper. While only one arm and projection are shown as being engaging a hole in the sprocket, it is believed the other arm and projection is suitable for such a use.

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With respect to claim 2, said lever 5 is fulcrum-mounted on a support 3 mounted on a wall of said housing (see Fig. 1 of Tozaki), said lever 5 assuming one or the other of two angular positions according to a plane perpendicular to said wall (best shown in Figs. 4(b) and 5(b) of Tozaki), respectively when said projecting elements are lying against the edge of said roll (Fig. 4(a) of Tozaki), or when only one of said projecting elements engages the hole in said sprocket (Fig. 5(a) of Tozaki).

With respect to claim 4, Tozaki discloses that lever 5 cooperates with a micro-switch 8 as shown in Figure 5(b) and an end of paper signal is generated (Tozaki, paragraphs [0025]-[0027]).

With respect to claim 6, Tozaki shows in Fig. 5, that only 1 of the projections k1 can engage in the sprocket hole in each position.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tozaki (JP 2001-206602) in view of Hosomi *et al.* (US 5,820,068).

Tozaki discloses the claimed device except for the at least two groups of support surfaces. However, Hosomi *et al.* teaches a device 24 for detecting end of paper for a printer 1 including at least two groups of support surfaces 17c, 17d, 17e (as shown in Fig. 4 of Hosomi *et al.*) and 17f and 61a (as shown in Fig. 6 of Hosomi *et al.*), the support surfaces of each of said

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groups being suitable for supporting said roll, respectively when said printer is in said first (Hosomi *et al.*, col. 5, lines 24-28), or in said second operating position (Hosomi *et al.*, col. 6, lines 10-13). It would have been obvious to combine the teaching of Hosomi *et al.* with the device disclosed by Tozaki for the advantage of being able to use the printer in a vertical position and thus freeing up more desk or counter space.

Allowable Subject Matter

8. Claims 3 and 5 are objected to as being dependent upon a rejected base claim and objected to for containing the above mentioned informalities, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to overcome the above mentioned informalities.

9. The following is a statement of reasons for the indication of allowable subject matter:

Claim 3 has been indicated as containing allowable subject matter primarily for the support that linearly slides on the wall.

Claim 5 has been indicated as containing allowable subject matter primarily for the two arms being reciprocally spread apart at an angle of about 120°.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shidai is cited to show another example of an end of paper detection device with multiple projections in a printer.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Colilla whose telephone number is 571-272-2157. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached at 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 21, 2008

/Daniel J. Colilla/
Primary Examiner
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